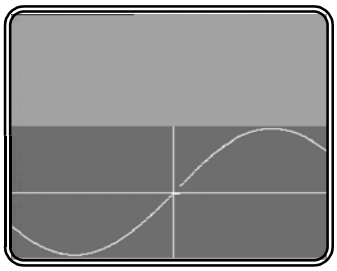
LINK ELECTRONICS, INC.

SYSTEM TIMING AND SC PHASE INSTRUMENT MODEL IEC-835

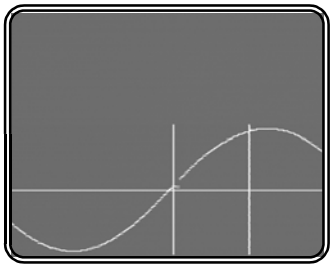
MADE IN THE USA



SC/H

PhaseIcon Instrument
MODEL IEC-835

FEATURES
- **SC/H Phase**
- **H. Timing**
- **Burst Amplitude**
- **Easy to Operate**



Timing & SC Phase

The IEC-835 Phaselcon measures the subcarrier to horizontal condition of any composite NTSC video signal and displays the results on any standard monitor. This measurement system also greatly decreases the time involved in extremely precise system timing. The information shown on the video monitor is horizontal timing and subcarrier phase. The visual display of the Phaselcon is keyed over the selected input. The Phaselcon displays the graphics for SC/H in the lower ½ of the video display.

In the certify mode of operation, a sine wave is displayed that represents one cycle of subcarrier. A vertical line represents the leading edge of sync relative to subcarrier phase. In the compare mode of operation, the certify and compare signals are displayed. An additional vertical mark is displayed on the left side of the display that shows relative differences in horizontal timing between the two composite signals. When H phasing reaches 200 nS the vertical line appears on the right for accurate timing.

Although the primary function of the Phaselcon is SC/H certification, it does system timing and burst amplitude as well. Timing of two video sources is accomplished by adjusting the source timing until the two vertical lines on the left side of the display are superimposed. As the source timing approaches 200 nS, the vertical line is moved to the right side of the display to increase the accuracy of the measurement. SC/H is accomplished by adjusting the source subcarrier for a match of the two sine waves. Each source to be matched should be switched into the compare input of the Phaselcon and calibrated until all sources in the system are timed and phased.

The shadow mode of operation reduces the video level behind the sine wave graphics. This area is calibrated to represent 40 IRE units for accurate burst level adjustment. The single sine wave signal should just touch the top and bottom area of the shadow signal. By comparing all video sources in the system, a perfect burst match can be obtained.

LINK **ELECTRONICS, INC.** ◆ 2137 Rust Avenue ◆ Cape Girardeau, MO 63703-7668
Phone 573 334 4433 ◆ FAX 573 334 9255

continued from front

The RS-170A specification states that the relationship between horizontal sync and subcarrier of field one, line 10 shall have a zero crossing in the up cycle of subcarrier and be in coincident with the leading edge of horizontal sync and have a tolerance of ±40 degrees. The Phaselcon is capable of displaying a much tighter tolerance, in the order of ±2 degrees of Subcarrier phase and ±2nS of Horizontal timing. In addition to these features, the IEC-835 has a unique ability to display Subcarrier distortion. The sine wave display is referenced to the actual incoming burst. All display timing is reference locked in such a completely unique way that parameter drift is all but eliminated.

SPECIFICATIONS

The IEC-835 displays an extremely accurate graphics representation of the video source being measured.

INPUT:

REFERENCE & COMPARE:

Level: . . . . . 1.0 volt p-p nominal, composite
Impedance: . . . . . Loop through, Bridging Differential
Return Loss: . . . . . >40dB
Connectors: . . . . . BNC

OUTPUTS:

Number: . . . . . Two composite video signals
Level: . . . . . 1.0 volt p-p ±5%, unity gain
Impedance: . . . . . 75 ohms ±1%, source terminated
Connectors: . . . . . BNC

ACCURACY:

Certify Mode: . . . . . ±2°, 10/90% APL
Compare Mode: . . . . . ±2°, 10/90% APL

FRONT PANEL CONTROLS:

Certify/Compare: . . . . . Selects Certify or Compare Mode
Operate/Bypass: . . . . . Selects the Phaselcon or bypass operation
Normal/Shadow: . . . . . Selects the Shadow Mode
AC On/Off: . . . . . AC Power ON/OFF

POWER:

Input AC: . . . . . 120 VAC, ±15 Volts
Power: . . . . . 18 Watts

MECHANICAL:

Height: . . . . . 1.75 Inch
Width: . . . . . 19 Inches
Depth: . . . . . 8 Inches
Weight: . . . . . 4.5 Lbs.

LINK ELECTRONICS, INC.
2137 Rust Ave.
Cape Girardeau, MO 63703
Phone: 573 334 4433
FAX: 573 334 9255

PROFESSIONAL SERIES-
stand-alone system products--by LINK